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ABSTRACT

This first of two monographs dealing with comprehensive institutional planning is directed at executive officers and institutional planners of two-year colleges interested in initiating or improving their approach to planning. Chapter 1 discusses planning as an essential administration function for the 1980s; such planning must be sensitive to societal trends and value shifts. Chapter 2 overviews literature found to be of value for conceptualizing and developing a comprehensive institutional planning system. The review encompasses literature on planning theory and literature having specific application and reference to planning in the two-year college. Chapter 3 synthesizes premises found in the literature--essential characteristics of the planning process, essential prerequisite considerations, and essential requirements of the process. Chapter 4 presents a conceptual framework to facilitate understanding of the role, function, and operation of a planning system. Discussion focuses on a popular administrative model (Planning, Management, and Evaluation Model) and a planning process developed within the framework of that system. Chapter 5 presents an open system view of planning, which takes into consideration the relationship with the nature of the environment. (A second monograph in the series, available as CE 025 231, offers a step-by-step approach to the planning process.) (YLB)

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COMPREHENSIVE INSTITUTIONAL PLANNING IN TWO-YEAR COLLEGES

An Overview and Conceptual Framework

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Steven L. VanAusdle

PREFACE

Challenges facing two-year colleges have never been greater. Unprecedented changes in societal trends and values have created both opportunities and problems. Demographic, social, and economic changes are altering the student population. Many colleges are confronted with shifting and in some cases declining enrollments, inflation, and a taxpayers' revolt.

There is a need for two-year colleges to continuously assess their managerial strategies and capabilities. The future of many colleges lies primarily in their ability to exercise self-control and to adapt to present and future conditions. Many colleges are developing and implementing comprehensive yet flexible planning processes designed to serve as a vehicle for their continuous development and renewal. Comprehensive planning is emerging as an essential administrative process for increasing or maintaining institutional vitality in the 1980s.

This monograph, the first of two dealing with comprehensive institutional planning, is directed at executive officers and institutional planners. It provides essential information for "planning to plan." Institutions interested in initiating or improving their approach to planning should find the planning precepts and conceptual framework especially useful. A planning process that can be adapted to meet individual district needs is explained in detail. It should be noted that planning

for the 1980s will require a distinctly different approach because of environmental uncertainties and limited resources. The nature of a planning process advocated for the 1980s is compared with approaches utilized in the past.

This monograph should not be viewed as a do-it-yourself institutional planning kit but as a resource for understanding comprehensive institutional planning as an essential administrative activity. Planners interested in a descriptive step-by-step approach to planning are referred to the second monograph in this series titled Comprehensive Institutional Planning in Two-Year Colleges: A Planning Process and Institutional Case Study. This second monograph deals with the process of preparing, utilizing, and evaluating a comprehensive planning process.

If your goal is to maintain or improve your college's reputation as being a responsive community-based and performance-oriented institution prepared to meet the challenges of the 1980s, now is the time to act. Comprehensive institutional planning is the way.

Steven L. Van Ausdle

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CHAPTER I

PLANNING: AN ESSENTIAL ADMINISTRATIVE FUNCTION FOR THE 1980s

Unprecedented change in societal trends and values present new challenges to the two-year college. These challenges are in the form of both opportunities and problems. Inflation, declining enrollment patterns, a taxpayer's revolt, and demand for curriculum of immediate utility are but a few of these challenges. Public pressure for more efficiency and accountability, as voiced through the rhetoric and actions of elected officials, compound these challenges.

Will the two-year college continue to be viewed as a particularly appropriate institution to help people work and live in a changing environment? Can it continue to respond to both present and future needs under anticipated conditions of more limited resources and shifting enrollment patterns? The answers lie primarily in the two-year college's ability to exercise self-control and improve its capability to adapt to present and future needs. The question is how: How can institutions best adapt and respond to changing conditions anticipated in the 1980s?

Institutional planning should be viewed as an essential administrative function in the two-year college. The central thesis of this paper is that a two-year college needs a comprehensive, yet flexible planning process to

support policy and operating decisions concerning present and future direction. While emphasizing the importance of planning, it is not the intent to de-emphasize other administrative functions; however, without viable planning, other functions become less sensitive to the well-being of the institution. It is often said that if you don't know where you are going, any route will get you there, even though you probably won't know when or if you have arrived. Recall the case of the airline pilot who announced to his passengers, "I've got some good news and some bad news. First the bad news: We're lost! Now for the good news: We're making very good time!"

Planning for the Next Decade

In order to plan for the next decade, the environmental milieu from which future determining forces will arise must be delineated and analyzed. Institutional planning must be sensitive to the institutional consequences of societal trends and value shifts.

Societal Trends

Societal trends consist of forces that will impinge upon the institution, influencing both the scope and nature of its programs and services. Institutional planning must ascertain the nature and impact of these trends on the institution. Osman, in a Resource Center for Planned Change publication, has identified the following societal trends as being

particularly relevant to planning postsecondary education. The writer summarizes Osman's ideas and presents corollaries pertinent to the two-year college. Osman's trends are:

1. Population: Significant structural changes will occur in the population. The predominant group will be composed of individuals who will be twenty to forty years of age by 1985. There will also be a significant increase in the number of people over sixty-five who can expect to live longer. These demographic shifts are summarized in Table 1.

   .Corollary: The demands for adult and continuing education may be at an all-time high. The number of high school graduates directly entering two-year colleges is likely to decrease substantially unless marketing strategies attract a larger percentage of this potential clientele.

2. Government: Governments at all levels will be expected to provide more services. A trend of the past several decades for the national government to intervene in all activities will intensify in the 1980s. National problems will require national planning and control. The United States is caught up in a change from an emphasis on natural resources development to the development of human resources.

   .Corollary: The presence of government will ensure the rights to education at higher levels. The centralized approach to public problems will demand an awareness of whole systems, and an understanding of the interactions among the social, economic, political, and ecological

systems. This will call for an interdisciplinary approach to problem solving.

3. Global Affairs: Political and economic activities are shifting from countries of the Atlantic to the countries of the Pacific rim. The Pacific Ocean will be the arena of activities in the near future. A second shift is the disappearance of colonial control in Africa where conflict appears inescapable. Another major development is the renaissance of Arab nations with the reappearance of Islam as a political and economic force in world affairs. A fourth factor is the persistence of continuing problems of the poor and undeveloped countries. There is also a disappearance of democracy on a global scale and the appearance of authoritarian governments. Added to the political aspects are trends toward internationalization of industry, including the expansion of multi-national corporations into the United States, the uncertainties concerning energy, and the scarcities of valuable natural resources required by industries of some nations.

.Corollary: Political and economic factors call for a new era of international cooperation based upon the inescapable interdependence of the nations of the world. Postsecondary education must ascertain specific impacts of international cooperation, study potential implications, and plan accordingly.

4. Environment: Actions to improve the natural environment will be constrained during the coming decade by concern for economic growth. Higher standards for air and water quality and land use legislation will advance slowly. New technologies needed to adapt industry to new resources, or new materials invented to replace resources, will tend to be less destructive of the natural environment. Moreover, erratic behavior of the weather as a consequence of climatic changes calls for an intensification of interest in the future of the environment from an entirely new perspective.

.Corollary: The impact of environmental controls on employment and productivity must be considered carefully. Institutions should examine their potential role and plan accordingly.

5. Energy: The United States will be highly vulnerable and dependent upon foreign oil at least through the mid 1980s. Dependency on foreign energy hopefully will decrease as alternatives such as nuclear, solar, tidal, and sonar energy sources are developed. Emphasis on conservation is questionable at best. Production of nuclear energy will continue to confront opposition.

.Corollary: Enormous investments in research and development will be required to create alternative energy sources. The technological transformation that will take place as the present energy base

is replaced will revolutionize the lifestyles and the institutions of the nation. Colleges need to examine their potential contribution to the energy problem and to plan for energy conservation.

6. Economy: Real Gross National Product will continue to increase at about 3 percent per year over the next decade. Employment will grow slowly because economic expansion will continue to be technologically intensive. There will continue to be a significant shift to a services-oriented economy. Unemployment will stay around 6 to 8 percent. The unemployed will be primarily those who cannot participate in a services-oriented economy due to lack of education. The tendency toward state capitalism will continue as shortages and high costs of energy converge to inhibit private economy. The American economy will be well into its post-industrial stage of development.

.Corollary: The shift to a service-oriented economy with less than 20 percent of the employed engaged in the production of goods implies a commensurate shift in the nature of curriculum at two-year colleges. The development of the information economy will require more education at higher levels. Sophisticated technology and changing occupational patterns will lead to a vastly more complex society marked by increasing interdependence and a growing need for postsecondary education.

7. Technology: One of many scientific and technological developments which will impact on the 1980s is the substitution of communications technology for transportation technology. It is estimated that information production and related employment will increase from 50 to 60 percent of the Gross National Product. The knowledge industry will likewise expand to support the information industry. "Miniaturization" is considered to be one of the most significant developments of the twentieth century. Impacts of "miniaturization" will continue to have effects on all society.

.Corollary: An advanced industrial society requires its people to acquire the knowledge to cope with elaborate structures and complex systems of thought in order to generate the new knowledge needed to deal with problems of an emerging post-industrial period. Two-year colleges can anticipate increased demands for community-based, performance-oriented instruction aimed at skills required to cope in a complex environment.

8. Human Settlements: The trend in urbanization is toward an abandonment of the central city and a movement to the smaller cities, towns, and countryside beyond. Human settlements are reorganizing regionally around nodes of specialization. Differences among city, suburb, and countryside are disappearing and urbanization is defined by lifestyle, occupation, and psychological attitudes.

A new geography is emerging with shifts of power to the Southeast and Southwest. The Great Plains, Rocky Mountain, and Far West regions will enjoy the energies of growth.

.Corollary: Colleges must be sensitive to population shifts in geographic location. Programs and services should follow the people.

9. Work: Work will become more specialized in a technology-intensive services society. Work will be largely white collar. Individuals who cannot participate in processing information are more likely to be unemployed. The work ethic will weaken in areas where there may not be enough traditional work for everyone who can work and wants to work. Licensed professionals will be required to demonstrate continued professional competence in order to practice.

.Corollary: As technological development increases, a large variety of specializations are spawned. To gain access there will have to be a large variety of training and education programs. Two-year colleges should conduct needs assessments on a regular basis and update curriculums accordingly.

10. Lifestyle: Shifting lifestyles will result in a much greater rate of increase in households compared to the growth in population. The use of birth control, the tendency to remain single longer and to have fewer children per family, the effects of the feminist philosophy, and the consequences of more women going

into the work force are affecting the lifestyles of individuals and the traditional role of the family. These trends will intensify with greater mobility, personal freedom, and equality of the sexes in employment. The change from a value system based on security and tradition to one based on freedom and opportunity will further fractionate the family, permitting a proliferation in lifestyles which will result in a highly pluralistic society.

.Corollary: Two-year colleges must be sensitive to educational implications associated with changes in lifestyles by providing relevant course and program offerings. Flexibility in offerings and schedules will become more important.

11. Women: The feminist movement will continue to expand and extend to all aspects of American society. Employment participation rates of women will rise from around 43 percent at present to 50 percent in 1985. Participation in the professions will progress, and the proportion of women in management positions will grow, but at a slower rate. The emerging economic era will enable women as well as men to participate, since the emphasis will be on creativity and innovation. Women's role will also expand in political affairs and will occupy more and more of the elective and appointive offices of governments.

.Corollary: Two-year colleges need to pay special attention to the educational and training needs of women.

12. Participation: Propensity toward participation in development of policy will increase in both the public and private sector as more people are better educated. The trend is from representative to participatory democracy. Participation is a reaction to bureaucracy and a revolt against authoritarianism. Elitism is out, egalitarianism is in.[1]

.Corollary: Two-year colleges should be prepared to provide training in human relations skills and may want to consider practical courses in policy development, parliamentary procedure, politics, etc. Added emphasis on development of active student organizations would complement classroom instruction by providing opportunities for participation. Administrators in two-year colleges must also be prepared to practice participatory decision making with increased involvement coming from all aspects of the college community.

Societal Values

In many respects, planning can be viewed as an exercise in institutional values clarification. Values held by individuals influencing and making policy shape the nature of the institution. Determining shifts in values is more complex than identifying and analyzing societal trends.

Osman emphasizes that institutions of higher education will only be able to plan for their future if the planners are able to unravel the dynamic energies of societal values, to anticipate the directions of individual or

1. Resource Center for Planned Change, A Futures Creating Paradigm: A Guide to Long-Range Planning from the Future for the Future (Washington, D.C.: American Association of State Colleges and Universities, 1978), pp. 5-12.

combined values, and to estimate the relative strength of differing value shifts. He indicates that colleges must recognize and adjust to inevitable changes as well as translate the values taking shape in the country, region, and the college into relevant programs.[2]

Twelve value shifts have been identified as being particularly relevant to institutional planning. These value shifts and their definitions, as identified by Osman, are:

1. Change -- an anticipated shift in attitude from the desire to preserve the status quo and the more traditional values toward an acceptance of the inevitability of change and a willingness to adapt to the new forces that pervade. This attitude may include the deliberate generation of the change in order to create economic growth, social development, or other desirable forces.
2. Freedom -- a shift from a personal compliance with political and cultural restraints toward conditions of true personal freedom. This shift allows all people to find within themselves the ability to participate in or direct the determination of their individual future.
3. Equality -- a shift from an inequitable social situation for many of our people to a more

2. Ibid., p. 19

egalitarian society; in socioeconomic terms, a move that emphasizes social justice and offers equality in terms of opportunity as well as results.

4. Leisure -- a shifting approach to non-working or leisure time from today's concept that not working means free time toward regarding leisure as a purposive way of self-fulfillment.
5. Foresight -- a shift in emphasis from the immediate and the empirical toward anticipatory planning and research and real interest in the future.
6. Pluralism -- a shift in global, national, regional, and institutional attitudes from the need to appear uniform and function within accepted homogeneous rules of behavior toward developing diverse patterns for individual lifestyles.
7. Localism -- a shift from dependence upon central government to a reliance upon state and local government. This includes citizen participation on a local level including, among other areas, development of public policies and initiation of legislation to implement these policies.
8. Responsibility -- a shift from indifference and lack of a sense of responsibility in civic affairs toward a higher sense of individual and public responsibility for others.

9. Knowledge -- a value area that will shift from a linear approach to problem solving toward an inter-disciplinary methodology and total-systems approach.

10. Quality -- a shift from current aspects of life and work that signal satisfaction of material and quantitative wants toward greater concern for a spiritual and qualitative perspective.

11. Goals (or ends) -- a shift from today's concern with the means toward an overall concern for the ends. This new approach will underline the transition from the semi-stationary state of today's society toward a society where change is accelerated and embedded in the fabric of life.

12. Interdependence -- a shift in nineteenth and midpoint twentieth century thinking that independence is a prime achievement for humans or nations toward the belief that interdependence is crucial and desirable.[3]

Osman cautions that the values described are to be used for purposes of initiating discussions, and that value statements to be ultimately utilized in planning should reflect careful and considered judgements on the part of planners.

Corollaries are not presented for the value shifts. Planners should develop a process within the institution to identify value shifts and study the consequences of such shifts.

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3. Ibid., pp. 20-33.

Societal trends and value shifts have converged to create a complex operating framework for the 1980s which will virtually dictate that every institution have a responsive planning system.

A Case For Institutional Planning

Historically, planning in most institutions could be characterized as ad hoc, informal, authoritative, short-range, and expansionary. Planning was often viewed as an added burden to an overloaded administrator and resulted in casual, often haphazard, approaches to deciding which new programs to initiate and what percent various budget items should be increased on an "across-the-board" basis.

In recent years, institutional planning has evolved as an essential administrative process which can be characterized as comprehensive, dynamic, systematic, long-range, and continuous. The approach has shifted to being more information-based and less intuitive. Ellison succinctly states the case for institutional planning:

> There is no choice but to plan. There may have been, in the early years of the community college movement -- the decades of the 50s and 60s -- but today public skepticisim and evermore scarce resources make strategic planning a question of institutional survival. Particularly in public community colleges that have somewhat insulated themselves from market forces, failure to plan now for the uncertain future can mean slow but certain decline. So the question facing all administrators in higher education is not whether but <u>how</u>.[4]

4. N. M. Ellison, "Strategic Planning," <u>Community Junior College Journal</u> (September, 1977) pp. 32-35.

Robinson recently addressed this issue in writing an epilogue for a planning handbook prepared by the National Center for Higher Education Management Systems. He states his case for planning:

> Whatever we do, whether we plan or do not plan, there will be a future. The determination of that future may be left to external factors over which the participants in the institution have no control, or to random factors over which members may exercise some influence or neglect. Alternatively, the future also may be determined by assessing probable external conditions and their relative consequences for the institution and then trying to do better than chance would predict in influencing the internal factors that affect the future.[5]

Robinson views institutional planning as an opportunity for the constituencies of a college to form and share a common map of the institution's present status, probable resources, and alternative futures. He raises the question: Can a planning process shape the future of its participants' preferences? His position is not only yes, but that even if the process fails, participants would rather be parties to causing the shipwreck than uncontrolling factors in disasters.

MacKenzie states that good results without planning come from good luck, not good management. With the challenges facing the educational manager in the decade ahead, both good planning and good luck may be necessary![6] Groff, in a speech to the Society for College and University Planning,

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5. A. J. Robinson, Epilogue for Kieft, R. W., Armijo, F., Bucklew, W. S. (Boulder, Colorado: NCHEMS, 1978), pp. 77-83.

6. R. A. MacKenzie, Managing Time, The Executive's Most Critical Resource. Tape 1 (New York: Advanced Management Research International, 1972), p. 2.

stated that the extent to which a college meets the challenge of being responsible to societal needs is a function, for the most part, of its sophistication in planning.[7]

Henderson sums it up well. He states:

> Planning is here to stay. We can use it to our advantage, or we can let others use or misuse it to our disadvantage. As the public becomes increasingly concerned about the educational enterprise, we have an opportunity now, through effective, clearly defined planning, to help restore confidence in education - in what we are doing - as we continue to increase in size and complexity, we have an opportunity now, through effective planning to increase our capacity to make intelligent decisions. Thrcugh effective planning we can untie our hands from administrative minutiae and concentrate our efforts on the educational process. The choice is ours.[8]

Institutional planning should be viewed as an adaptive process designed to enhance institutional development and self-determination. In the past, development implied growth. Planning focused on planning for more programs. In the future, development is anticipated to be more qualitative and will be measured by the responsiveness of the institution to changing conditions.

Can institutional planning enhance self-control? Cleland and King answer this question pointedly. They indicate that to ignore planning is to make oneself the victim of the

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7. W. H. Groff, A Comprehensive Academic Planning Process for Technical Education. Paper presented at the 13th Annual International Conference of the Society for College and University Planning, August 1978.

8. L. G. Henderson, A Plan for Planning for a State Community College System (Tallahassee, Florida: Department of Higher Education, Florida State University, June 1973), p. 9.

planning of others.[9]

Governance of the two-year colleges is emerging as a major issue in the 1980s. State boards are feeling increased pressure from policy makers to account for expenditures, avoid unwarranted duplication, and operate efficiently. Such pressures will likely result in more planning decisions being made at the state level if institutions fail to respond to changing conditions. Comprehensive institutional planning should facilitate articulation and coordination with state agencies on a proactive basis. Such an approach should enhance institutional self-determination and preserve institutional autonomy.

Planning Definitions

This paper uses many key words and concepts which have meanings specific to the realm of educational planning. Following is a list of definitions of these terms as they are used throughout this document.

Comprehensive - That characteristic of a point of view which strives for a maximum of inclusiveness, so that the whole picture rather than scattered or isolated segments is in view.

Comprehensive Planning - A formal system for integrating long-range academic, administrative, financial, and facilities planning for the total college and its principal components.

9. D. I. Cleland and W. R. King, "Developing a Planning Culture for More Effective Strategic Planning," Long Range Planning (1974), p. 71.

Evaluation - The process of assessing the actual performance of the institution in terms of the goals and objectives derived from the planning process.

Goal - A desired future state or condition which, if attained, will contribute to the achievement of the institutional mission.

Management - The administrative processes and techniques which are used to achieve the institutional goals and objectives derived from the planning process.

Needs Assessment - The process of delineating, obtaining, and providing decision makers information on the institution and its environment to inform planning decisions.

Objective - A desired future state or condition which, if attained, will contribute to the achievement of one or more institutional goals. Objectives are subordinate to goals and are more narrow, concrete, specific, and subject to measurement. The achievement of a goal will normally require the attainment of several specific objectives.

Operational Planning - The process of developing action plans at each organizational level. Operational plans are derived from and are developed within the context of the strategic plan.

Plan - A written document or documents setting forth the goals and objectives of the institution and specifying programs and courses of action designed to achieve them. Plans may include background information on the institution;

mission and scope; goals and objectives; planning assumptions; policies and procedures for planning; description of programs; long-range projections of enrollments, resource requirements, capital and operating budgets, etc.

Planning - An ongoing process by which an institution assesses its environment, changes or reaffirms its mission, establishes derivative goals and objectives, and then designs programs and courses of action to implement them.

Strategic Planning - The process of determining institutional direction and focus.

CHAPTER II

INSTITUTIONAL PLANNING: STATE OF THE ART

This chapter includes an overview of literature found to be of value for conceptulizating and developing a comprehensive institutional planning system. This review encompasses both literature on planning theory and literature having specific application and reference to planning in the two-year college.

The Theorists' Contributions

Einsweiler presented a comparative analysis of planning theorists' contributions.[1] These theories reflect different views on the appropriateness of rational versus intuitive approaches, holistic versus partial analysis, qualitative versus quantitative measures, and linear versus non-linear processes. Figure 1 compares the theorists' positions on planning.

Early theories of organization as advocated by Taylor, Fayol, and Weber would fall on the left end of the continuum.[2]

1. R. C. Einsweiler, "Competencies for Planning," a paper submitted to the National Center for Research in Vocational Education (Columbus, Ohio: Ohio State University, December, 1978), p. 2.

2. F. E. Taylor, Scientific Management (New York: Harper and Law, 1911); H. Fayol, General and Industrial Management (New York: Pitman, 1949); and M. Weber, The Theory of Social and Economic Organization, A. M. Henderson and T. Parsons. (New York eds., Free Press, 1965).

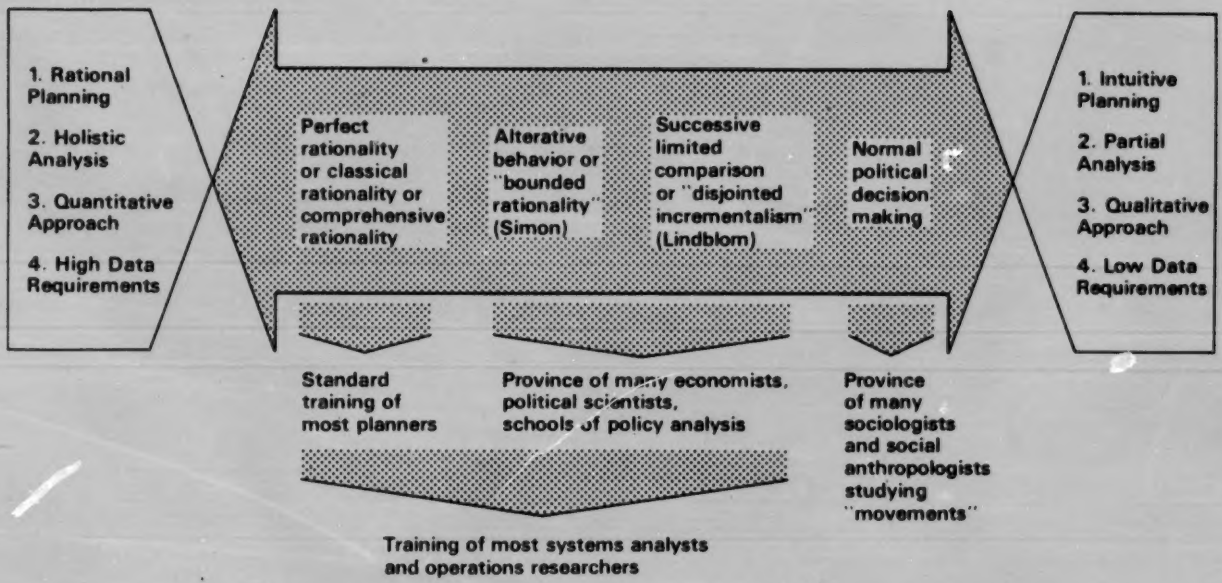
1. Rational Planning
2. Holistic Analysis
3. Quantitative Approach
4. High Data Requirements
Perfect rationality or classical rationality or comprehensive rationality
Alterative behavior or "bounded rationality" (Simon)
Successive limited comparison or "disjointed incrementalism" (Lindblom)
Normal political decision making
1. Intuitive Planning
2. Partial Analysis
3. Qualitative Approach
4. Low Data Requirements
Standard training of most planners
Province of many economists, political scientists, schools of policy analysis
Province of many sociologists and social anthropologists studying "movements"
Training of most systems analysts and operations researchers

Figure 1. Comparison of Planning Theories*

* Adaptation of table 1 (p. 3) from Einsweiler

These theorists viewed planning as sequential steps of goal setting, identifying alternative courses of action, and selecting the best alternative based on efficiency criteria. Planning was viewed as a linear process. Systems analysts and operations researchers are the strongest proponents of models based on these theories. Einsweiler indicated that in actual practice, application can be utilized only for simple situations because of the number of alternatives and data requirements.

Simon pointed out the weaknesses of the classical model when applied to complex decision settings.[3] Weaknesses identified were as follows: (1) inability to acquire all facts, (2) limited resources, and (3) difficulty in distinguishing between facts and values. According to Einsweiler,

> Simon retained the basis of 'economic man,' but described this more limited approach as 'bounded rationality.' In simplified terms the goals/strategies work is combined. The focus is on workable strategies chosen intuitively as well as analytically. Then the options are compared as to positive and negative consequences. Rather than optimizing, Simon's decision maker satisfies. Rather than searching for the sharpest needle in the haystack, he searches for the one sharp enough to sew with.
>
> Simon's work made an early imprint on private or corporate planning and more recently on the field known as policy analysis.[4]

Lindblom, to the right of Simon on the continuum, focused on marginal concepts in planning or decision making and combined

3. A. H. Simon, Administrative Behavior. (New York: Free Press, 1965).

4. Einsweiler, p. 4.

ends and means in the decision making process. He sought concurrence on policies or action plans. He advocated disjointed incremental steps toward goals rather than grand schemes. His approach has been described as "muddling through." Critics of Lindblom's approach describe it as backing or stumbling into the future.[5]

Michael advocates a non-linear model in which planning is viewed as a social learning process for more enlightened public action. As he puts it:

> We shall have to extend the societal learning process to learn as a society how to learn in the situation that makes long-range social planning necessary. But, much more so than in the past, we shall have to be self-consciously committed to the learning process and to the learning experiences as such.[6]

Michael's belief is that people working in organizations, and in the social and natural environment linked to them, need to find it rewarding to learn how to

1. live with and acknowledge great uncertainty;
2. embrace error;
3. seek and accept the ethical responsibility and the conflict laden interpersonal circumstances that attend goal setting;
4. evaluate the present in light of anticipated futures;
5. live with role stress and forego the satisfactions of stable, on-the-job, social group relationships;

5. C. E. Lindblom, The Intelligence of Democracy: Decision Making Through Mutual Adjustment (New York: Free Press, 1965).

6. D. N. Michael, On Learning to Plan and Planning to Learn (San Francisco: Jossey Bass, 1973), p. 283.

6. Be open to changes in the commitments and direction, as suggested by changes in the conjectured pictures of the future and evaluation of on-going activities.[7]

Goodlad presents a comprehensive model of educational change.[8] Although Goodlad studied primary and secondary schools, many of his ideas seem applicable to institutional planning in two-year colleges. His central thesis is that institutions, under certain conditions, can become more vital than they currently are and that most of the change must be effected by those who work and live in them each day. He sees as a necessary condition for change a productive tension between the institution wanting a better condition for itself (an inner-orientation toward change) and an outside entity whose self-interests are served by assisting in the process (an outer-orientation toward change). The self-interests of the two parties, although different, have something to give and to gain from each other. Recognizing the obstacle of the human tendency to want stability in all things, particularly in most aspects of the educational enterprise, Goodlad successfully tested a change strategy in elementary schools based on his thesis. The process utilized was referred to as the "Dialogue, Decision, Action, Evaluation (DDAE) Model." The lesson learned was that external change agents, instead of trying to insert something into the institution's culture, first should help that culture develop an awareness of and a responsiveness to itself.

7. Ibid., pp. 218-282.

8. J. I. Goodlad, The Dynamics of Educational Change (New York: McGraw Hill, 1975).

Then, assuming productive tension exists, the institution is in a position to pursue a self-renewing process. Goodlad's model is reinforced by Eiseley whom Goodlad cites as follows:

> In terms of human evolution, there are two ways of looking at the process, and both of them to some degree, are represented among scientists today. There is one view which is inclined to say that the only way in which life alters or changes is when change is forced upon it...
>
> But there is another point of view, which is that in life itself there is a centrifugal dynamism of sorts, not just in man but in all living creatures. It does not wait upon its environment; instead, it intrudes farther and farther into it, experimenting on its own.[9]

Goodlad found a way to trigger this centrifugal dynamism in the schools through the DDAE process. To help the reader understand change models, Goodlad develops the notion of an ecological model of education functioning within an ecosystem. He states:

> I have in mind an ecological community in which both living and non-living things constitute a system and interact within it. In this conception, man is part of, not master or conqueror of, the environment. Things and sets of things, individuals and groups of people and the relationships among all these are seen as one, a unified whole. In this conception, there is nobody on the outside trying to do something to someone on the inside. All are part of the same systematic whole or ecosystem. Every person and every thing has consequences for all other persons and things. Nothing is inconsequential. Individuality and uniqueness exist, but function, and are understood in relation to the whole and to other parts of the whole.[10]

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9. Ibid., p. 171.

10. Ibid., p. 205.

Goodlad suggested that a great deal can be learned about an institution by studying it as an ecosystem within which relations to other parts of the larger ecosystem can be inferred. This forces the viewer to go beyond linear ways of perceiving relationships and to recognize the inter-connected and dynamic nature of the system. Such ecological thinking embraces the whole -- the impact of students on instructors (as well as the reverse), the impact of instructors on instructors, the use of resources, and the relationship among all of these. The ecological model encompasses the traditional linear change models and the responsive model (DDAE approach described earlier) but goes beyond.

He indicated that whereas the linear models (input-output, end-means) are oriented to the present (what works) and the responsive model to the present and future (where we are and what we might become), the ecological model seeks constantly to keep past, present, and future in perspective. The major use of an ecological model of education is to develop an awareness and accompanying sense of identity among those who occupy the ecosystem. He states:

> If we are to gain some reasonable measure of control over change, we must think in ecological terms regarding our lives and institutions. The development of such thinking is an appropriate central educational activity. But this is not sufficient. Social planning and social engineering, too, must be guided by an ecological perspective, with the awarness of the interrelatedness of things, people, and institutions.[11]

11. Ibid., p. 205.

Margaret Mead states succinctly what is required in addressing the problems of the modern family (cited by Goodlad to emphasize the point):

> In the 30's, medicine reduced a patient to an organ. If a patient had kidney trouble, that's what we treated. Twenty years later we remembered that a patient was more than a kidney . . . we remembered that he had a heart, a brain, and we began treating the whole patient.
>
> It took another ten years to get the patient back in the family, then the family back into the community. Now we must put the community back in the nation and the nation back in the world. You can't save the family all by itself.[12]

Goodlad suggests we can't save an educational institution all by itself, either. It is not a self-contained entity with all the ingredients for a full self-renewing culture. We must look beyond the institution and study the ecosystem as well as look inside the institution to understand its sense of being. This perspective certainly suggests a broad, dynamic context with many implications for educational planning.

Changes in Planning

The previous analysis of planning and change theory provides a framework for considering past and current planning practices. In an extensive computer search of the literature, over 250 documents that pertained to planning at the postsecondary level were identified. Much of this literature pertaining to two-year colleges described master plans that focused primarily on facility requirements. Only in the most recent literature was comprehensive institutional planning mentioned. The synthesis

12. Ibid., p. 214.

of this literature which follows traces the evolution of institutional planning, assesses the current state of the art, and identifies some important trends and problems. The findings should provide direction to administrators interested in improving the planning process within their institutions.

The Role of Planning

Planning is viewed as a necessary but not sufficient condition for institutional success. Plans must be implemented in an efficient and effective manner. Planning can

1. provide information and insight to help decision makers determine institutional direction (ends);
2. provide information and insight to help the institution determine the most appropriate programs and processes to best obtain its ends; and
3. provide a framework for organizing, directing, and controlling the activities of the institution toward its ends.

Historical Development

In the past, planning has occurred on an informal, fragmented, and expansionary basis. While the need for more formal comprehensive planning systems seems self-evident, only recently have administrators given serious attention to comprehensive institutional planning.

Until the late 70s, planning in two-year colleges was limited primarily to facility planning and curriculum planning.

Freeman,[13] Kieft,[14] and McManis and Harvey,[15] indicated that these two activities were usually carried out separately, not recognizing the link that should exist between academic programs and the physical environment within which they are conducted. Freeman states:

> Physical-plant planning was typically considered to be the province of presidents, trustees, and donors, while academic planning was the responsibility of provosts, deans, and faculties. Many campuses bear dramatic testimony to the fact that, in university architecture, form was more likely to follow the 'edifice complex' of presidents and donors than academic function. Academic planning usually followed their special interests and expertise, rather than the educational needs of society.[16]

Unprecedented growth and availability of required financial resources in the 1960s and early 70s offered little incentive or opportunity for administrators to plan comprehensively for the future. In the late 1970s, however, enrollments began to level off or decline and purse strings were tightened. Legislative bodies began to express considerable interest in how educational appropriations were managed and insisted on greater accountability.

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13. J. E. Freeman, "Comprehensive Planning in Higher Education," New Directions for Higher Education (Autumn 1977), pp. 33-52.

14. R. N. Kieft, Academic Planning: Four Institutional Case Studies (National Center for Higher Education Management Systems (NCHEMS) (Colorado, 1978).

15. G. L. McManis and L. J. Harvey, Planning Management and Evaluation Systems in Higher Education (Littleton, Colorado: Ireland Educational Corporation, 1978).

16. Freeman, p. 35.

Planning then started to become imperative. Boulding expressed the need for planning:

> The manager of a declining institution is required to think of more things that haven't been thought of. In a growing institution, mistakes are easily corrected; in a declining institution, they are not.[17]

Smith and Anderson noted:

> The planning function during periods of growth in higher education is different from planning during periods of stability or decline. In the former situation, a major question is how to corner more resources for the long run. In the latter case, the question becomes one of how to reallocate existing resources.[18]

A relatively new concern to postsecondary education is the aspect of change centered on the reallocation of the existing resource base within the institution. Kieft states:

> The deceleration of income growth, federally mandated compliance acts, escalating energy costs, rising tenure ratios, and collective bargaining pressures are among the forces that have decimated managerial flexibility and left many institutions with reallocation as their only way of implementing change.[19]

New Approaches

Institutional leaders are now giving much more serious thought and attention to comprehensive institutional planning. New administrative approaches have emerged. Many of these

17. K. E. Boulding, "The Mangement of Decline" A.G.B. Reports 17 (1975) pp. 4-8.

18. R. D. Smith and J. J. Anderson, "Rational Crisis Planning in Higher Education." From A. C. Heinlein, Decision Models in Academic Administration (Kent, Ohio: Kent State University Press, 1973), p. 41.

19. Kieft, p. 31.

approaches are technically oriented and have their roots in the planning-programming-budgeting system (PPBS) which originated in the Department of Defense in the late 1960s. Basic concepts upon which PPBS was founded included operations research, cost-benefit analysis, and economic planning theory.

Farmer defined PPBS as follows:

> A system for (1) planning -- the selection and identification of the overall long-range objectives of the organization and the systematic analysis of various courses of action in terms of relative costs and benefits, (2) programming -- deciding on the specific courses of action to be followed in carrying out planning decisions, and (3) budgeting -- translating planning and programming decisions into specific financial plans.[20]

Many educational planners were attracted to PPBS. It was viewed as a logical step-by-step procedure for recognizing many of the forces impinging on institutional decisions. While some administrators identify the postive outcomes of PPBS, by and large the experience in postsecondary education has been disappointing when PPBS is viewed as "the" central administrative tool. Weathersby and Balderston concluded that PPBS had only limited success at the University of California because of its complexity, cost, inadequate measures of effectiveness, and lack of acceptance by faculties and administration. They suggested policy analysis as a better approach to comprehensive planning.[21]

20. J. Farmer, Why Planning Programming and Budgeting Systems for Higher Education? (Boulder, Colorado: Western Interstate Commission for Higher Education, 1970), p. 7.

21. F. E. Balderston and G. B. Weathersby, "PPBS in Higher Education Planning and Management," Higher Education 3 (1972) pp. 324-345.

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This approach attempts to combine some of the tools of PPBS with more pragmatic and less complex planning and decision processes. Many other planning systems are evolving that have their roots in concepts of PPBS.

The initial experimentation with PPBS has stimulated a variety of conceptual approaches to planning. Freeman indicated that despite the widespread interest in institutional planning, there has been no systematic study of the characteristics and effectiveness of comprehensive planning systems. Thus "institutions just beginning to develop planning processes have had little empirical experience on which to rely for guidance."[22]

Recent Planning Trends

Studies describing the extent, nature, and effectiveness of institutional planning practices in two-year colleges was not found in the literature. However, Reid stated that:

> Among community colleges, Cuyahoga Community College District (Ohio), Maricopa County Community College District (Arizona), and Dallas County Community College District (Texas) have established positions of leadership by virtue of their systematic planning efforts. Each is a large multi-campus district. Strategic planning among small single campus college districts is less spectacular.[23]

A study conducted in 1976 at the University of Pittsburgh on planning at major universities revealed trends that may offer insight and understanding to the nature of planning in the two-year colleges. The results of the Pittsburgh study as presented by Freeman are summarized as follows:

22. Freeman, p. 40.

23. A. E. Reid, Planning for the Second Decade, 1977-1988, Ed. 149829, ERIC Document Reproduction Service (Bergen Community College: Paramus, New Jersey, 1978) p. 8.

1. Interest in comprehensive planning is growing. Most planning systems have been developed in the last five years.
2. Planning processes tend to be centrally controlled. The president usually has played a leading role in initiating and controlling planning.
3. Planning processes tend to be highly structured. There is a clear trend toward the development of more formal structures.
4. Planning is dominated by resource considerations. Resource considerations focus on such management concerns as enrollments, budgets, staffing requirements, space needs, and program outputs. Planners tend to undertake quantitative analyses of institutional resources and the cost of academic programs, rather than qualitative evaluations of programs.
5. Planning systems rely heavily on data collection and analysis. There has been a marked emphasis on the development of more sophisticated management information systems and analytical models to provide the data necessary to support planning. The expense of such efforts, however, is forcing institutions to define their information needs more clearly and to design less costly ways of collecting, storing, retrieving, and analyzing data.
6. Trustees, faculty members, and students are demanding greater participation. Faculty and student participation

has been more apparent than real. Trustees, who traditionally have confined their interests to financial matters, are beginning to express more interest in academic affairs as costs increase, as demands for accountability become more vocal, and as faculties and students begin to demand a greater voice in non-academic and governance matters.

7. The influence of external agencies is growing. Growing demands by federal agencies, state coordinating boards, legislatures, and other public bodies for greater accountability have accelerated the development of management information systems. Federal and state agencies, by controlling the funding of public institutions and financial aid programs, are in a position to affect not only the amount of educational activity but also its direction and emphasis. In some cases, these external forces have generated merely cosmetic reactions. In other cases, external agencies have contributed positively to the development of planning processes that can significantly improve institutional management. Occasionally, their influence has had a more negative impact by threatening institutional autonomy and independence. It seems probable that, as resources become tighter, the influence of external agencies will continue to grow.[24]

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24. Freeman, pp. 40-43.

Conceptual approaches to planning vary widely. Freeman noted that: "Institutional planning clearly is in an evolutionary--some would say experimental--stage of development. Interchange among institutions has been limited, and most planning systems have been self-designated".[25] He indicated that this has lead sometimes to false starts, frustrations, and failures. He calls for better ways to exchange information and experiences about institutional planning and to identify principles that can be applied in different institutional settings so that effective approaches can be replicated and processes that prove unproductive are not repeated.

The planning literature on two-year colleges echoed the findings of the Pittsburgh study. The exceptions might be in the degree of structure in the planning process (3 above) and in sophistication of data orientation and analysis (5 above). Because universities operate on a larger scale and have access to more specialists and data processing capability, their planning systems tend to be more structured and data-based.

Planning Problems

Postsecondary institutions which have developed or are in the process of developing comprehensive institutional planning systems have encountered several problems. Some of these are reflected in the trends identified above. The Pittsburgh study reported by Freeman identified seven problem areas. Kieft, McManis and

Reid identified similar problems. Planning problems as outlined by Freeman are:

1. Inadequate conceptual framework. There appears to be little theoretical underpinning for comprehensive planning.
2. Lack of coordination. A frequent problem was failure to coordinate the planning and budgeting processes.
3. Financial uncertainty versus institutional rigidity. Public institutions are especially vulnerable to shifts in funding patterns, manpower requirements, student interests, and the public policies affecting higher education. The best laid plans can be rendered obsolete by changes in the external environment. Plans and planning processes must be flexible and adaptive to contingencies. The creation of a flexible planning system that can anticipate changes in enrollment and funding patterns in the long-run can permit the institution to adjust its programs and pattern of expenditure far enough in advance to take advantage of attrition and other targets of opportunity. Otherwise, drastic adjustments may have to be made in the short-run that can adversely affect the quality of academic programs.
4. Inadequate information to support planning. Freeman indicates that most institutions produce a great deal of data, but it is often of doubtful reliability and rarely in a form that meets planning and management needs.

5. Resistance to planning. Some administrators and faculty resist planning because of fear of losing autonomy, lack of confidence in the management approach to institutional planning, inexperience in dealing with planning issues, and excessive time, effort, and money required. To alleviate this concern, planners should clarify that planning is never to be used to substitute administrative for academic judgments, but is to provide relevant information to improve judgments. Resistance can be overcome by developing means for meaningful participation, providing an explanation of the necessity of sound planning to institutional health, and by showing that resource allocations will be based on planning decisions.
6. High cost. Planning requires an investment of both time and money. Planning requires the services of a competent professional with adequate staff.
7. Inadequate attention to planning for retrenchment. Most systems appear to be designed primarily for either the "steady state" or growth, rather than for declining enrollments and financial support. However, demographic information suggests many institutions are likely to experience such problems in the 1980s.
8. Need for evaluation. Freeman indicates that evaluation is one of the weakest links in most planning systems. Evaluating the qualitative aspects of program performance

has yet to be addressed by most institutions in any systematic way.[26]

26. Ibid., pp. 43-46.

CHAPTER III

PREMISES FOR EFFECTIVE PLANNING

The literature suggests that effective planning is dependent upon certain fundamental conditions. Although planning is not an exact science, planners write that its effectiveness appears to be subject to various laws or principles which imply particular elements and strategies. Planning premises synthesized from the literature are presented here. These premises are classified into (1) essential characteristics of the planning process, (2) essential prerequisite considerations, and (3) essential requirements of the process.

In this chapter, important planning system characteristics are delineated and explained. Then, premises related to how an institution should organize and readjust itself for planning (pre-planning activity) are presented. Essential requirements of the process that should lead to an effective planning system are then explained.

The purpose here is to synthesize the findings and recommendations of planning experts that have recently appeared in the literature. This synthesis provides insight into the necessary conditions for and nature of an effective planning system.

Planning System Characteristics

Effective planning systems, as described in the literature, seem to share some common characteristics. These characteristics are:

Planning Must Be Comprehensive

The planning process must integrate academic, administrative, facility, personnel, and financial plans. Every function must be considered as an integral part of the institution. The activities of all functions should be viewed as factors contributing to the efficiency and effectiveness as a whole.

Planning Should Be Viewed as a Continuous Process

Kieft, Armijo and Bucklew stated this principle and supported it by indicating that planning is a future-oriented activity. Because anticipation of future developments is inherently more likely to be inaccurate than what is done to meet current needs, planning should be a continuing process and should be designed accordingly. "Planning's ongoing nature permits adjustments to unanticipated developments and to correct mistakes. Planning is cyclical and none of its various stages are final."[1]

Effective Planning Requires Flexibility

The planning system should allow for future uncertainties such as enrollment shifts, changing employment requirements, changing student interests, and potential shifts in financial

1. R. N. Kieft, F. Armijo, N. S. Bucklew, A Handbook for Institutional Academic and Program Planning: From Idea to Implementation. (Boulder, Colorado: National Center for Higher Management Systems, 1978), p. 4.

support. A flexible approach to planning should result in quite specific short-range operational plans for perhaps one to two years, less detailed development plans covering the intermediate period of two to five years ahead, and strategic plans focusing on general factors that may affect the institution five to ten years hence. This approach permits adjustment to a reasonable range of contingencies in each time period.[2]

Halstead cautioned, "Plans must be flexible enough to allow for change, yet rigid enough to encourage action."[3] Kieft, et al. indicated that planning must be continuous and flexible as a means of accommodating adjustments to unanticipated developments or past mistakes.[4]

Planning Should Be Viewed as an Evolving Process

Representatives of the institution will have to learn how to plan. It is better to start with a basic process that is understood and nonthreatening than to lay on a sophisticated process that likely will threaten faculty and administrators, possibly leading to rejection. Halstead cautions about the dangers of overplanning by indicating that the consequences may be as great or greater than underplanning. Administrators are cautioned about transplanting a sophisticated planning process from another institution.[5]

2. Freeman, p. 49.

3. K. D. Halstead, Statewide Planning in Higher Education (U. S. Government Printing Office: 1974), p. 48.

4. Kieft, et al., p. 6.

5. Halstead, p. 29.

Prerequisite Conditions for Effective Planning

Six conditions must occur prior to the actual design and implementation of a planning process. They are:

1. Secure executive leadership and commitment

A visible commitment by the institution's chief executive officer is important. Kieft, et al. indicated that where the board of trustees exerts considerable influence in operational matters, the board's commitment should be equally evident.[6] Freeman noted that if the president and the principal academic leaders are indifferent toward planning, it is a guarantee of failure.[7] Mundt wrote that it is essential to secure top-level support at the outset and that support be maintained throughout the planning process.[8]

2. Plan to plan

Mundt emphasized the importance of developing a planning system that is consistent with the history, structure, and personality of the institution.[9] Pre-planning activity can be viewed as planning to plan. An institution should determine its planning requirements, study existing processes and capabilities, develop planning policy, assign responsibility, develop a planning structure, develop a planning process, and initiate

6. Kieft, et al., p. 6.

7. Freeman, p. 47.

8. J. C. Mundt, Long-Range Planning for Community College Education, Department of Higher Education, Florida State University (Tallahassee, Florida: July 1973), p. 8.

9. Ibid., p 9.

inservice staff development activities on institutional planning. Shoemaker noted that a planning process requires a precisely defined series of activities with a related calendar or time schedule so everyone knows completion dates of various steps.[10]

3. Make provisions for staff time and expertise

Ultimate responsibility for planning should rest with an executive officer with institution-wide responsibilities. According to Kieft, the ideal situation would be spending one year in designing, explaining, and pilot testing before implementation. He stated, "Expect continual revision and adjustment the first year as theory becomes practice. Consequently, an institution should expect to spend two to three years developing a finalized, operational planning process."[11] Halstead also emphasized, "Planning should be deliberate, with provision for adequate time and money to be invested in it. It is not a weekend affair."[12]

4. Develop clearly defined planning procedures and a schedule

Freeman advocates a rigorous system of formal policies and procedures for planning, resource allocation, and the evaluation of performance consistent with the organizational structure,

10. W. A. Shoemaker, Data and Its Uses: A Process System for for Planning. Paper presented at National Technical panel meeting on Planning Two-Year Colleges. (Columbus, Ohio: National Center for Research in Vocational Education, December, 1978).

11. Kieft, p. 143.

12. Halstead, p. 29.

management philosophy, and purpose of the institution. He indicated that such a system should include specific steps to be followed in initiating plans and getting them reviewed and approved by the central administration and governing board, as well as means for regular review, revision, and updating of plans. He called for such procedures to integrate planning with budgeting and with the allocation of physical space. Time-tables for planning and budgeting should be defined along with a clear indication of who is involved in making decisions.[13]

Kieft suggested that as a planning process becomes operational it will become more mechanistic. "Specific forms will be developed, with detailed instructions."[14] Shoemaker indicated that a planning process requires a precisely defined series of activities. He wrote:

> A PERT chart can be used to graphically describe who is to be involved with what kind of data, at what point in the process, and for what purpose. A calendar or time schedule must then be related to these activities so everyone knows completion dates for the various steps.[15]

Such a process can help each person understand his or her responsibility, and the schedule can be used to specify exactly when specific products of the process will have to be completed so the system can be kept on schedule. Kieft noted that planning procedures and schedules should be formally communicated to the institutional community. This lends visibility to planning

13. Freeman, p. 47.

14. Kieft, p. 6.

15. Shoemaker, p. 8.

activities and indicates the importance accorded by the institution. "Formal scheduling of planning activities puts them on a footing with other established institutional practices."[16]

5. Make provisions for broad participation

Mundt stated, "meaningful involvement by faculty, trustees, administrators, and students is the principal sine qua non of successful planning; go to great pains to make certain this occurs."[17] Freeman recommended a high-level coordinating council to advise and assist the president and the planning office. He emphasized that it should be made clear that, "while students and faculty have important advisory roles, the ultimate responsibility for planning and budget decisions rests with the administration."[18] Shoemaker also advocated campus-wide involvement in the planning process. He wrote "one of the foundational and most valuable resources of a college is the intelligence and creative ability of its personnel....Planning process can be designed to make the best use of this resource and not suppress it."[19] He believed that people need to feel that they are participating in the maturational development of their institution and that they have a say in their individual and corporate destiny.

16. Kieft, p. 141.

17. Mundt, p. 10.

18. Freeman, p. 48.

19. Shoemaker, p. 11.

He stated:

> the experiments of the late sixties have proven that it is not necessarily beneficial for all groups to be represented at the highest levels (administration and board). The important thing in the design of a planning process, therefore, is that everyone knows that they have opportunities for input at appropriate times, places, and levels -- both directly and through representatives.[20]

6. Integrate institutional with state system level planning

Planning must feed to and flow from the decision process at the state system level. Planning must recognize the realities of the state decision process and be integrally related to political strategies affecting the system's efforts to influence state government.

Essential Requirements of an Effective Planning Process

The conceptualization and design of a comprehensive institutional planning system should reflect certain fundamental requirements. Following are ten requirements considered essential to an effective planning system:

1. Planning should not be separated from decision making

McManis and Harvey view planning, management, and evaluation as integrated and cyclical functions that are inseparable operationally.[21] Kieft emphasized that planning and resource allocation must be linked in a decision process that identifies objectives and selects and develops programs to accomplish them.[22] Kieft, et al indicated that the planning process should rationalize decision making by minimizing its ad hoc

20. Ibid., p. 11.

21. McManis and Harvey, p. 9.

22. Kieft, p. 4.

character. The process should consider the future of the institution as a coherent whole and specify the appropriate allocation and reallocation of resources. All decisions reached during the planning process should be governed by the same priorities and criteria. Administrative allegiance to a planning process requires the maintenance of planning as the primary force in the determination of the budget and the allocation or reallocation of resources.[23]

2. Planning should be both short and long-range

Kieft indicated that planning is short-range in that it develops the budget for the next fiscal year and continues program commitments. Planning is long-range in seeking to establish goals and direction for the foreseeable future. The short-range resource judgements made throughout the planning process can be viewed as means to long-range predetermined ends.[24] Halstead noted there is probably an optimum time period for which planning should be done. "The period cannot be so long as to preclude reasonable accuracy in projecting statistics and trends, nor can it be so short as to make planning meaningless."[25]

Shoemaker suggested program decisions with budget implications should be projected for at least five years. He believes it usually takes three to five years before any substantial change in the pattern of resource allocation begins to have a full and lasting impact.

23. Kieft, et al., p. 5.

24. Kieft, p. 143.

25. Halstead, p. 29.

The minimum planning horizon will ultimately be determined by a coordinating or governing board and will likely be a function of required information for funding capital projects.

3. Planning must result in a budget

Shoemaker noted that statements relating to where an institution should be going and what it ought to be doing are of little value in and of themselves. As he explained, "Such statements result in little more than general frustration among the more creative and aggressive people on campus." He indicated that the opposite extreme is five to ten years of budget extrapolations created by the business manager. "Frequently very little, if any, thought is given to change in programs, services, and personnel and the only concern is for financial planning." He believed that an effective planning process must focus on institutional mission, definition of environment, design of student-centered programs, and be concerned with the fiscal projections that make the best use of limited resources. "Institutional planning must take place in the real world and a major part of the real world is fiscal responsibility."[26] Mundt advocated program budgeting as a means of linking the planning and budgeting processes.[27] Kieft advocated an an integrated planning and allocation/reallocation process that results in a budget.[28]

26. Shoemaker, p. 9.

27. Mundt, p. 10.

28. Kieft, p. 139.

4. Planning requires a clear definition and understanding of institutional mission, aims and goals

Freeman stated, "one cannot draw a road map without knowing in advance where one is going." He indicated developers of a comprehensive planning system must begin by clearly stating the purpose and role of the planning system, then determine the mission of the institution, as well as the goals and objectives of its principal organizational components.[29]

Kieft, et al., cautioned that planning must not be limited to quantifiable or measurable considerations. They suggested that the process recognize as many benefits and associated costs as possible. They pointed out that many worthwhile benefits may be depreciated by attempts at quantification. They emphasized, however, that this does not mean quantification can be ignored or that the effort to measure quality should be abandoned.[30] Mundt suggests that the goals of the institution should be idealistic but reachable. They should not be so pedestrian as to require little or no effort to obtain them. He, too, saw general as well as measurable objectives having a place in the plan.[31]

5. Planning requires cooperation between different levels in the hierarchy

Freeman advocated that the general direction of the institution should be defined by the central administration, but

29. Freeman, p. 47.

30. Kieft, et al., p. 4.

31. Mundt, p. 11.

detailed academic plans should be developed by academic units and subunits. He noted that planners should ensure that all the planning is fully coordinated and that the sum of resources anticipated at lower levels does not exceed total institutional resources.[32]

According to Shoemaker, planning must take place at the department level. He believed that the people who are responsible for activities are the best prepared to implement efficiencies creatively as well as design new program activities. His position is dependent upon the amount of help departmental people receive through the planning process, the understanding of their roles in the fulfillment of institutional goals, their perception of the environment in which they work and from which students come, and their recognition of the fiscal limitations of their setting. He emphasized the importance of enabling individuals at the grassroots level to feel a sense of community and a realization of their systematic relationship to the whole institution. Shoemaker added, however, that the administration and the board of trustees have final authority. "The implication, of course, is that all decisions made in departments and divisions, and even by broadly representative groups come to the administration and the board as recommendations."[33]

32. Freeman, p. 49.

33. Shoemaker, p. 12.

6. The planning process should emphasize working papers, not a final printed document

The planning process should focus on providing information to support decisions and de-emphasize the objective of publishing a plan that may or may not have an impact on important decisions. Freeman noted that, although the actual written plans themselves are secondary, the disciplined process required to develop, analyze, review and approve written plans is essential. All major academic and administrative support units should be required to develop written plans covering a specified period of at least five years. Changing conditions call for planning to be viewed as a continuous and on-going process. The dynamic nature of the process renders a final planning document obsolete by the time it is printed.[34]

Planners should emphasize the development of working papers that support decisions and inform the college community and the public of the progress of the institution.

7. Planning must be information-based

Planning requires information about both the internal aspects of the institution and its external environment. Freeman stated, "the failure of many planning systems can be traced to inadequate information about the institution, its programs, its finances, its students, and its staff." He suggested the need for comprehensive management information systems (MIS) and appropriate analytical models to generate the information required to support planning.[35]

34. Freeman, p. 50.
35. Ibid., p. 49.

Halstead stated that planning should be done within the context of current and projected social, economic, and political characteristics surrounding the institution. He recommended a study of long-term occupational trends and advances in technology.[36]

Kieft, et al., identified important external factors to consider such as local, state, and national economic trends; projected student characteristics; employment and career opportunities; labor trends; social priorities; student aid programs; and the physical environment of the institution.[37]

8. Planning requires the development of institutional priorities

Priorities are necessary because of limited resources. In the recent past, incremental growth was viewed as the norm. Planning reflected the expectancy that any changes could be covered by an increased number of students, an increase in the fee paid by the student, and increases in state and federal appropriations.

Institutions are now finding that in order to make changes it is necessary to change priorities and reallocate funds. Resources are scarce and changes will require alterations in traditional allocation patterns as trade-offs are considered in order to obtain optimum vitality.

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36. Halstead, p. 29.

37. Kieft, et al., p. 6.

9. Planning should provide a means for pruning and deleting programs

Changing needs and scarce resources require that some programs be reduced or eliminated. According to Shoemaker, the unpopular and distasteful thought of reducing staff is frequently considered only when an institution is on its last legs. Then it achieves too little, too late. He believed it reflects a greater concern for human dignity to help people find positions where they derive satisfaction from being productive instead of allowing them to fulfill traditional roles in "over-stuffed, outdated, and parasitic programs."[38]

It only takes a few such programs to drain the resources of an institution enough to prevent it from having the resources to develop new programs and services that may be vital to survival.

10. Planning requires a means for evaluating institutional performance

Planning literature indicated that few institutions have developed effective means of determining if programs are accomplishing their objectives in an effective and efficient manner. Conditions of economic restraint will require that some marginal programs be reduced or eliminated if new programs are to be added. To make such decisions, an effective method for determining the relative priorities is essential.

The planning process itself should also be evaluated on a regular basis to ensure that it is responsive to the needs of

38. Shoemaker, p. 12.

the institution. The planning process should be revised as necessary to take advantage of improvements in new techniques and past experiences.

CHAPTER IV

A CONCEPTUAL FRAMEWORK FOR PLANNING

Planning has been described as an essential administrative function for the 1980s. Unprecedented change has resulted in a crucial need for two-year colleges to develop improved administrative systems and techniques as a means of optimizing the use of their limited resources. The operating framework for the coming decade will virtually require that two-year colleges develop a responsive planning function.

One of the major problems encountered by institutions undertaking a comprehensive institutional planning effort is lack of an adequate conceptual framework. Freeman noted that there appears to be little theoretical underpinning for comprehensive approaches to planning.[1] The purpose of this chapter is to present a conceptual framework to facilitate understanding of the role, function, and operation of a comprehensive institutional planning system. Readers interested in the planning process, i.e., a step-by-step approach, are referred to a companion document titled Comprehensive Institutional Planning in Two-Year Colleges: A Planning Process and Institutional Case Study.[2]

First, an overview of a popular administrative model is explained -- the Planning, Management, and Evaluation (PME) Model. This model shows the essential components of a planning process and the relationship among these components.

1. Freeman, p. 43.

2. S. L. Van Ausdle, Comprehensive Institutional Planning in Two-Year Colleges: A Planning Process and Case Study (Columbus, Ohio: National Center for Research in Vocational Education, 1980).

The Planning, Management, and Evaluation Model

This section provides an overview of administrative process as articulated by McManis and Harvey. Their hypothesis is that the fundamental administrative process of an institution contains three basic elements: planning, management, and evaluation. These processes can and should be developed as one integrated system; i.e., a planning, management, and evaluation (PME) system.

McManis and Harvey believe that the challenges facing college administrators today have never been greater and that most institutions are at a crucial juncture in their evolution.

> Even among those institutions that currently do not feel the external pressures of legislative oversight, budgetary constraints, and in some cases, crises, it is our professional opinion that the operating framework of the 1980's will virtually dictate that every institution of higher education have responsive planning, management, and evaluation systems.[3]

Their view of the operating framework for the 1980s is presented as follows:

- Higher education opportunities will be extended to perhaps 60 percent of the college-age population and significant numbers of nontraditional students, particularly adult women, handicapped, minorities, and older people.
- Life-long learning will be a concept of growing importance.
- Community colleges will expand, so that 90 percent of the people will live within an hour of a higher education facility.
- The trend towards concentration of enrollments in public institutions will continue - perhaps claiming 80 percent of college students by 1990.
- The greatest growth will be in vocational and technical programs at community colleges and in continuing education programs for adults.

3. McManis and Harvey, p. 1.

- Tuition costs will climb perhaps threefold at both private and public institutions.
- There will be a continued trend toward increased centralization and staff control in higher education in the interests of efficiency and accountability.
- An expanded role will be played by colleges and universities in regional and national development and will cause state appropriations for higher education to soar.
- Major breakthroughs will occur in the measurement of the outcomes of higher education.
- More effective planning, programming, budgeting, management, and evaluation techniques will be developed.[4]

The PME system was adopted as a context within which to study the planning function for two reasons: (1) current research and development efforts directed toward improvement of administrative process in postsecondary education have been pursued within this context and (2) the United States Office of Education, as a primary funding source for institutional development, has been accustomed to thinking within the PME system context when reviewing funding proposals. This approach was also recommended by a national consulting panel on planning in two-year colleges.

Overview of the Planning, Management, and Evaluation (PME) System

Kinnison presented the planning, management, and evaluation (PME) system as shown in Figure 2. He defined the elements of the system as follows:

Planning. The ongoing process by which an institution

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4. Ibid., p. 3.

Figure 2. A Planning, Management, and Evaluation (PME) System. (Charles Kinnison, Planning Specialist for McManis and Associates. "Planning in Two-year Colleges" This model presented at the National Center for Research in Vocational Education, Columbus, Ohio, December, 1978).

establishes or reaffirms its mission and determines its derivative goals and objectives. (A goal was defined as a general statement of a desired outcome; an objective was defined as a specific measurable outcome with a set time frame growing out of a goal.)

Management. The administrative processes and techniques which are used to achieve the institutional goals and objectives derived from the planning process.

Evaluation. The process of assessing the actual performance of the institution, in terms of the goals and objectives derived from the planning process.[5]

Kinnison noted that the PME system helps an institution first determine where the institution is headed and then manage affairs in such a way as to get it there. Then, the PME approach enables the institution to determine when it has reached or failed to reach its planned destination and how effective and efficient it has been in getting there. The relationships of the components comprising the model are shown in Figure 2. The sequence of the process should be noted as well as its cyclical and integrated nature. Information derived from evaluation is utilized for subsequent planning and management decisions. The relationship of the PME system elements to the more traditionally defined management functions are shown in Figure 3.

5. C. Kinneson, Senior Associate with McManis Associates, Inc., "Planning in Two Year Colleges" (Comments presented at a meeting convened by the writer at the National Center for Research in Vocational Education, Columbus, Ohio, December, 1978). The purpose of the meeting was to assist the writer with his research.

Figure 3. Elements of a Planning, Management, and Evaluation (PME) System.

Explanatory note: The outer ring represents the integrated planning, management, and evaluation components. The second ring represents the management systems that are used to integrate planning, management, and evaluation. The third ring illustrates the relationship of some of the more traditional management activities to the PME and supporting management systems. The elements in the center of the circle are management responsibilities that need to be carried out in order for the PME systems to operate effectively.

(L. James Harvey, 1977.)

The Planning Component of PME

McManis and Harvey note, "the problem is not the absence of plans or competent planners, but rather the absence of a comprehensive planning process that integrates academic, physical, and financial planning."[6] They advocate a planning process that:

1. Assesses the needs of the community of which the institution is a part and the constituents it seeks to serve.
2. Requires the institution to routinely examine its mission in light of those needs and either reaffirm the existing mission or modify it.
3. Develops derivative goals and objectives.
4. Ensures that all supporting academic, physical, and financial plans that are evolved are in consonance with those goals and objectives.
5. Involves the persons responsible for the implementation of the plan in its development.[7]

Kinnison noted that there are numerous techniques that can be utilized to implement a PME system. Many institutions are utilizing some version of management by objectives (MBO); planning, programming, and budgeting (PPB); zero-based budgeting; or combinations of each. The important point is that the institution has some system or process for facilitating the routine review of its direction, reaffirming or changing its mission, and establishing its derivative goals and objectives.

6. McManis and Harvey, p. 6.

7. Ibid., p. 6.

A Comprehensive Planning Process for Two-Year Colleges

The planning process presented in this section was developed within the framework of the PME system and is shown in Figure 4. The purpose here is to identify and explain the function of the components of the model.

Pre-planning

The prerequisite to developing and implementing a planning process is to determine the institution's need and desire for it and to develop a plan for planning. In so doing, the following questions should be answered:

1. Why plan?
2. Who will plan?
3. What will be the nature of the planning process?
4. What is the time-frame for planning?

The pre-planning will not be complete until planning policy and a process have been developed and approved. At the outset, a planning council should be appointed and planning responsibilities assigned to an executive officer. Initiation of a college-wide staff development program focusing initially on planning methodology and subsequently on information describing the institution and its environment is highly recommended.

The staff must learn how to plan and adapt. Ackoff believes that because of uncertainties created by turbulence in the college environment planners need to design and develop decision-making processes and systems that enable them to learn

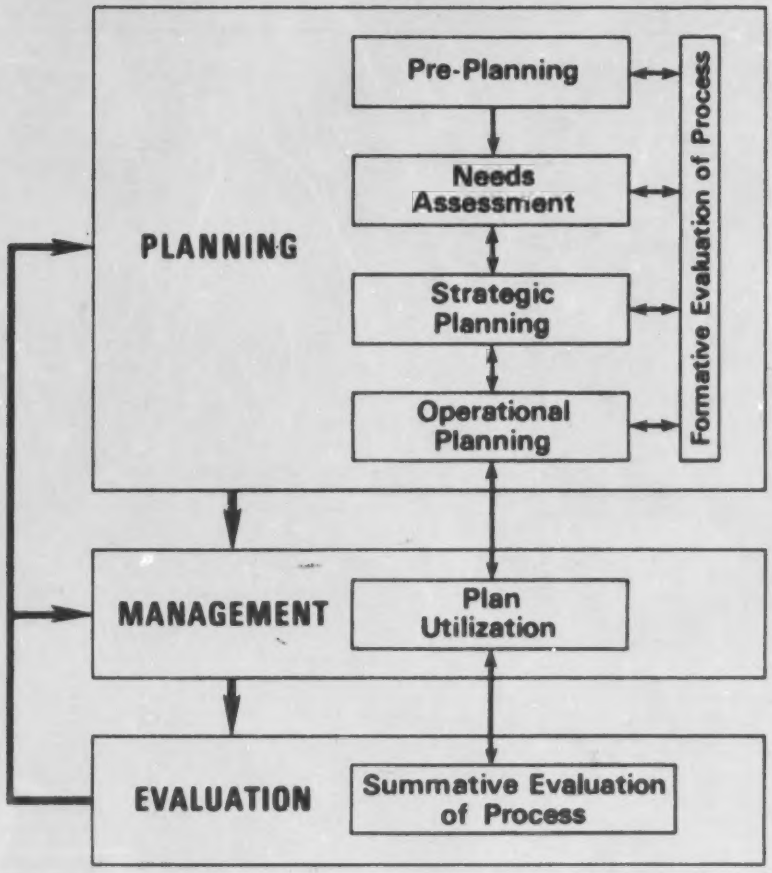

Figure 4. Comprehensive Institutional Planning System for Two-year Colleges.

and adapt more effectively. According to Ackoff, to learn is to increase one's efficiency and effectiveness over time under constant conditions. To adapt is to maintain or increase one's efficiency and effectiveness over time under changing conditions.[8]

Needs Assessment

Needs assessment is defined as the process of delineating and obtaining information about the institution and its environment to inform planning decisions. Kieft, Armijo, and Bucklew call for three types of studies to obtain required information:

1. Studies of current programs and resources.
2. Studies of internal information.
3. Studies of external information.[9]

They describe the nature of information to collect and suggest procedures for doing so. Examples of external needs frequently studied include students vocational interests and employers' labor market needs.

Recent literature described the changing and complex external environment and points to the uncertainty created for institutions. The primary implication is a need for a better understanding of the external environment and the likely impact of environmental change on the institution. One of the main problems in monitoring the external environment is the mass of

8. Russell L. Ackoff, "The Systems Revolution," Long-Range Planning (December 1974): 8.

9. R. N. Kieft, F. Armijo, N. S. Bucklew, A Handbook for Institutional Academic and Program Planning: From Idea to Implementation (Boulder, Colorado: National Center for Higher Education Management Sustems, NCHEMS, 1978), p. 25.

information to be scanned. Open systems theory provides a conceptual framework for the development of the needs assessment component of the comprehensive planning process and will be explained in the next chapter. Environmental information should be analyzed and presented to decision-makers in the form of planning assumptions. Planning assumptions are statements about perceived future conditions. Valencia Community College's approach to needs assessment is presented as Exhibit C in the companion document titled Comprehensive Institutional Planning in Two-Year Colleges: A Planning Process and Case Study.[10] Exhibit C explains how needs assessment at Valencia relates to other components of the planning process.

Strategic Planning

Strategic planning is the process of determining institutional direction and focus and is based upon information obtained from the needs assessment and presented as planning assumptions.

Strategic planning starts with a review and update of the mission statement. Then, college-wide goal statements should be prepared. It is recommended that the goal statements be of two types -- continuing and special. The continuing goals provide a further delineation of the mission statement and, as the name implies, will not change significantly from year to year. The continuing goals provide direction to new as well as ongoing activities. Special goals are "special" for a stated period of time and tend to be specific and timely aspects of continuing goals. They represent the most specific statements of direction at the institutional level. Like the continuing

10. Van Ausdle, p. 91.

goals, the special goals provide direction to both new and ongoing activities and programs, though they seek primarily to intensify efforts on certain ongoing activities and to bring about change.

The relationship of strategic planning to needs assessment and operational planning is illustrated in Figure 5. Strategic planning determines what the institution will do after assessing the conditions in the college and its external environment. The process results in strategic plans which reflect planning decisions by policy makers. Planning decisions are recorded as the continuing and special goals. They serve as input for operational planning.

Operational Planning

Operational planning is the process of developing long-range and annual plans at each organizational level within the institution. These plans are derived from or developed within the context of institutional goals developed via the strategic planning process and are action oriented (see Figure 5). Specific measurable objectives are developed along with procedures for implementing these objectives. Strategic planning is the process for determining what the institution will do. Operational planning focuses on determining how and when the "what" will be done. These processes should not be viewed as being mutually exclusive or linear in nature. Rather, these processes are iterative, dynamic, and cyclical. Both interact with the environment and each other. Figure 5 shows these relationships.

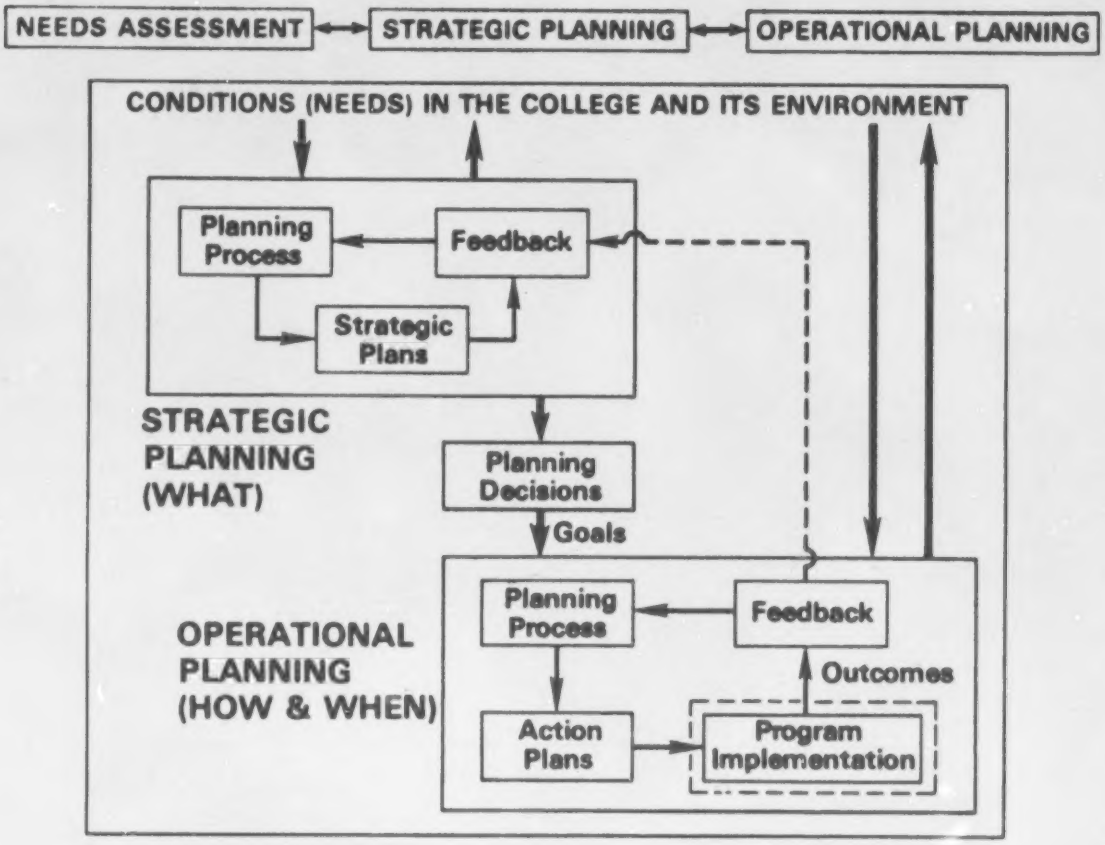

Figure 5. Relationships between Strategic and Operational Phases of Comprehensive Institutional Planning System

Plan Utilization

Utilization involves directing the accomplishment of goals and objectives identified and described in the strategic and operational planning phases. Utilization activity consists of organizing, allocating resources, delegating responsibility, and directing institutional activity. According to McManis and Harvey, "the management process (PME) should help assure that decisions reached at all levels within the institution result in actions, activities, and/or directions which materially contribute to the realization of the institution's goals, objectives, and supporting plans."[11]

In order to implement such a management process, they see the need for a method of translating institutional objectives into administrative, programmatic, and individual objectives. McManis and Harvey state:

> Carefully tailored and appropriately scaled management systems must be in place in order to ensure that decision makers receive timely and relevant data and information. An equitable process for allocating limited financial resources among competitive programs must be institutionalized--one in which institutional and programmatic objectives set the standard for equity, not emotion or favoritism. Operating policies and procedures must be clearly stated and followed. Reporting relationships must be clear and understood by all and responsibility and commensurate authority must be delegated to the lowest practical level. Last, the institution must consciously attempt to develop its executive and supporting staff at all levels to provide them with required knowledge, skills, and abilities to function effectively in their current positions, as well as to prepare them for higher level positions.[12]

11. McManis and Harvey, p. 7.

12. Ibid., p. 5.

Evaluation of Planning Process

The planning process should be viewed as an evolutionary process within the institution. As college personnel learn about planning from their experience and the experiences of others, they can improve planning. The planning process should be carefully studied with the findings utilized to make improvements. Evaluation design should be developed and specified during the pre-planning phase. This phase should not be confused with measuring attainment of institutional objectives or outcomes. Evaluation of the planning process should be formative as well as summative. The iterative and cyclical nature of the process is meant to imply that evaluation of both the process and product should be an ongoing activity.

CHAPTER V

AN OPEN SYSTEMS VIEW OF PLANNING

Only in recent times have the fields of organization and management recognized the contribution of systems theory. The literature of the early 1960s began to examine the relationship between organizational and open systems theory. Earlier theories treated organizations as rational systems which operated by some set of logical relationships. Theories of scientific management, administrative management, and bureaucracy were in vogue. The limitations of these theories have become more obvious through time. Undesirable outcomes that had not been anticipated occurred on a more frequent basis. Many of these undesirable outcomes were attributed to the fact that models neglected many factors external to the organization. They did not concern themselves with the influence of the organization's environment on its structure or function. Organizations were treated as closed systems with organizational purpose, defined by the conventional wisdom of top administration, being the primary determinant of organizational behavior.

A Need for a New Theory

The inadequacies of closed system thinking about organizations has become increasingly apparent during the recent decade of rapid environmental change. Katz and Kahn note limitations

and misconceptions of closed system thinking as follows:

1. Failure to recognize fully the dependence of organizations on inputs from their environment.

2. Overconcentration on principles of internal functioning.

3. Failure to recognize that there are more ways than one of producing a given outcome.

4. Failure to understand and develop the feedback or intelligence function, the means by which the organization acquires information about environmental changes.[1]

An Open System View

Katz and Kahn's theoretical model for the understanding of organizations is that of an input-output system in which the return from the output reactivates the system. They indicate that social organizations (two-year colleges) are open systems. Katz and Kahn define an open system by delineating ten essential characteristics. These characteristics are:

1. Importation of energy. Open systems import some kind of energy from the environment. An educational institution would draw renewed supplies of energy from other institutions, people, and the material environment. Energy would take the form of students, faculty, goods and services, equipment, etc.

1. D. Katz and R. Kahn, "Open Systems Theory," Readings in Organizational Theory (New York: Random House, 1971), pp. 13-29.

2. Throughout. Open systems transform the energy available to them, i.e. the educational process in educational institutions.

3. Output. Open systems export a product into the environment. Outputs consist of educated students, and other services to the community such as financial and social contributions.

4. Systems as cycles of events. The pattern of activities of the energy exchange has a cyclic character. The students exported into the environment furnish the source of energy for the repetition of the cycle of activities.

5. Negative entropy. Organizations can avoid entropy (death) by importing from their environment more energy than they expend.

6. Information input, negative feedback, and the coding process. Information input refers to signals received about the environment and about the system's own functioning in relation to the environment. Information feedback of a negative kind enables the system to correct its deviations from course. Planning can be viewed as a process of facilitating the information input, feedback, and coding process.

7. The steady state and dynamic homeostasis. A steady state represents a continuous inflow of energy from the external environment and a continuous export of the products of the system. The ratio of the energy

exchanges and the relations between parts remains the same. In adapting to their environment, systems will attempt to cope with external forces by incorporating them or acquiring control over them via the growth process.

8. Differentiation. Open systems move in the direction of specialization and elaboration. In educational institutions, more technical specialists are hired to perform specialized functions such as negotiations, planning, and research.

9. Integration and Coordination. Differentiation is countered by processes that bring the system together for unified functioning. Orderly and systematic articulation is provided through such devices as priority setting, the establishment and regulation of routines, and the scheduling and sequencing of events. Comprehensive planning may serve as a coordinative device.

10. Equifinality. According to this principle, a system can reach the same final state from differing initial conditions and by a variety of paths. There is no one best way.

Building on their definition and characteristics, Katz and Kahn go on to emphasize that the study of organizations should include the study of organizational-environmental relations.

They state:

> We must examine the ways in which an organization is tied to other structures, not only those that furnish economic inputs and support but also structures that can provide political influence and social legitimation. The open-system emphasis on such relationships implies an interest in properties of the environment itself. Its turbulence or placidity, for example, limits the kinds of relationships that an organization can form with systems in the environment and indicates also the kinds of relationships that an organization will require to assure its own survival.[2]

A schematic representation of a system is presented in Figure 6. The key to the concept of a system is the idea of relationships. A system behaves in a way unique to its totality because of the relations among its parts and to its environment. Because the parts are interdependent, the behaviors are more than just the sum of the behaviors of the parts.

The area within the dotted lines of Figure 6 can be viewed as an educational institution. The environment is shown impinging upon the institution. Katz and Kahn denote the degree to which the system is receptive to all types of environmental stimuli as "systems openness." The educational leadership (chief administrators, trustees) are one primary determinant of the degree of openness or permeability. Degree of openness may also be influenced through institutional barriers or environmental scanning mechanisms, but it should be noted that environmental inputs are not necessarily controllable.

The basic questions become: In what ways and under what conditions does the environment affect the institution? How

2. Ibid., p. 31.

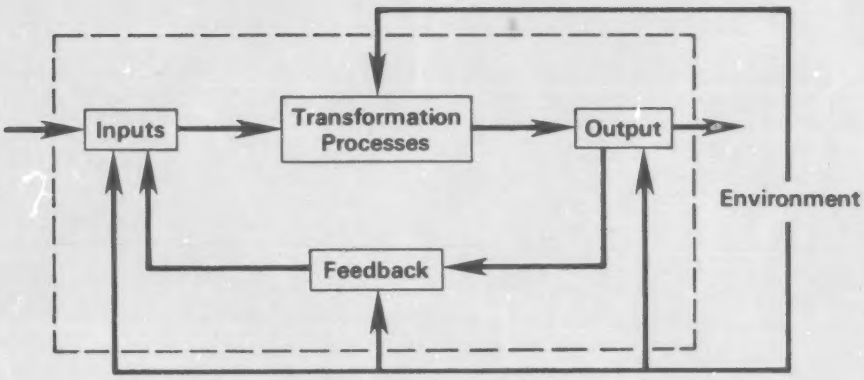

Figure 6. Model of an Open System
Energic input-transformation-output system showing relationships between organization and environment.

does the institution deal with these effects in terms of its goal-oriented behavior? What environmental changes might affect the institution in the future and how?

Integration of Open Systems and Planning Theory

The integration of open systems and planning theory is accomplished by analyzing the administrative system's role relative to transactions between an institution and its external environment. Figure 7 shows the relationships between institutional environments and the administrative system. The purpose of the administrative system is to direct and control the institution. The administrative system is in turn composed of three subsystems: planning, management, and evaluation. The planning subsystem has primary responsibility for determining institutional direction. More emphasis is being placed on the significance of the environment within which the institution operates as an important determinant of future actions. Thus, the planning subsystem is viewed as being responsible for enabling the institution to learn about and adapt to environmental conditions. Conflict results when the environment demands actions which are inconsistent with the broad purposes of the institution.

We now turn to a major concern of this chapter, the relationship between the nature of the environment and the approach to planning. This relationship will be examined by determining how the planning process can be used to provide important

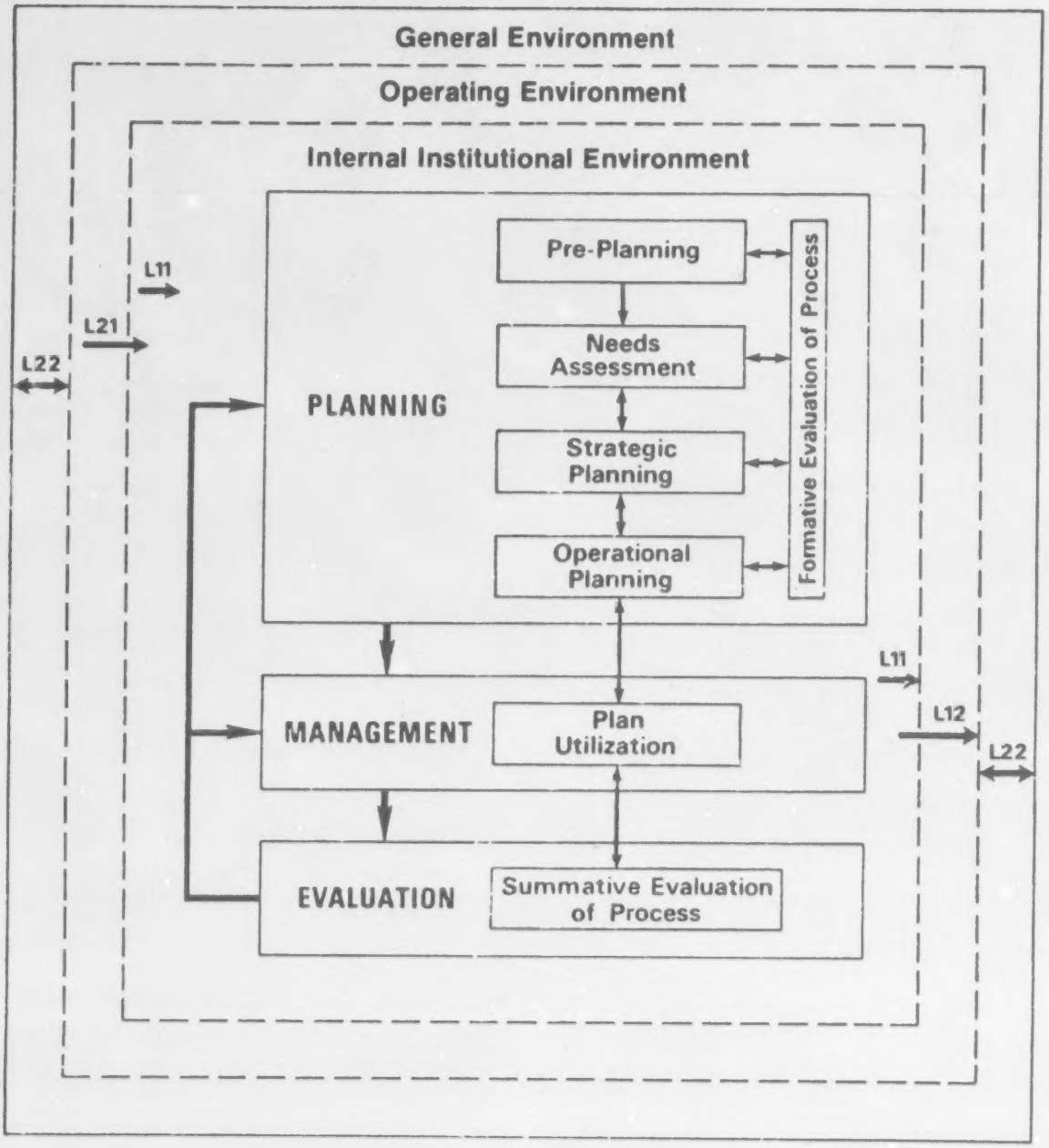

Figure 7. Schematic showing relationships among the general, operating, and internal institutional environments and the administrative system.

information from the external environment of the institution for making planning decisions.

Needs Assessment (Environmental Analysis)

An initial step in comprehensive institutional planning is an analysis of the internal and external environment of the institution. Emery and Trist recommend consideration of four sets of interdependencies for a comprehensive understanding of institutional behavior.[3] Terreberry presents their framework as follows where L indicates some degree of interdependency, the subscript 1 refers to the organization, and the subscript 2 refers to the environment.[4]

Set		
L_{11}	L_{12}	L_{11} = Processes within the organization, internal interdependencies.
	Where	L_{12}, L_{21} = Exchange between the organization and its environment, transactional interdependencies.
L_{21}	L_{22}	L_{22} = Process among parts of the environment, environmental interdependencies.

Emery and Trist call the set of environmental interdependencies (L_{22}) the causal texture of the environment (see Figure 7). Through these processes, elements in the environment become related and, hence, more complex.

3. F. E. Emery and E. L. Trist, "The Causal Texture of Organizational Environments," Human Relations 18 (February 1965).

4. S. Terreberry, "The Evolution of Organizational Environments," Administrative Science Quarterly (March 1968), pp. 590-613.

As the environment becomes more complex, it has greater potential for influencing the institution. Terreberry indicates that the environment is becoming more complex over time. In effect, as the interdependencies within the external environment increase, more uncertainty is created for the institution. This uncertainty must be coped with if the institution is to survive, much less grow and prosper.

Figure 7 shows the three levels of environment that must be analyzed. These are the internal, operating, and general environments.

The internal environment contains all elements within the institution. Emery and Trist would refer to the transactions within this environment as the L_{11} component. Intra-institutional studies (needs and status assessment) would focus on the L_{11} component.

The operating environment for an educational institution consists of the parent organization (e.g. state coordinating or governing board), other educational institutions, and the public from the communities it serves. Thus, inputs from the operating environment that enter the institution include: information on revenues, staff, learners, supplies, technology, etc. These exchange processes are designated as the L_{21} transactions. The output (L_{12} transactions) into the environment includes knowledge, skills, and attitudes of the learners and other participants.

The general environment consists of all social, political, economic, and technological factors which indirectly influence the institution. The processes through which these factors become related are labeled as the L_{22} transactions.

With the establishment of an open system model for comprehensive institutional planning and with the delineation of the inputs, outputs, and transactions within each environment, the analysis of the environment can be better understood. The relevant factors which must be considered in establishing a comprehensive plan are likely to be more visible. The approach offers direction to the planner regarding what factors to consider when studying the environments.

Emery and Trist and Terreberry believe that as environments evolve, their component parts become more interdependent, resulting in more complexity. They suggest that at least four "ideal types" of organizational environments can be identified which may be thought of as existing simultaneously in the "real world" of most organizations. They are: (1) random placid, (2) placid clustered, (3) disturbed reactive, and (4) the turbulent field. Not only does complexity per se increase as one moves from one level to another, but more importantly, the potential effect of the environment on the institution increases.

Random Placid Environment

Within the environment there are good and bad elements. Opportunities are good elements; threats are bad elements. As an institution operates, it wants to avoid the bad elements and move toward the good areas which are favorable to the

institution's survival and goal achievement. The first and simplest environmental texture is called the placid, randomized environment. The good and bad areas change slowly over time and are randomly distributed. Because change occurs relatively slowly, the element of uncertainty is reduced. Because of the random nature of the environment, however, it does no good for the institution to develop strategic plans. One cannot identify good areas to plan toward. The institution operates at the tactical planning level by adapting to immediate conditions and making short-term decisions. The institution is likely to move incrementally with the direction determined by trial and error.

Placid, Clustered Environment

Emery and Trist's second level environment is called placid, clustered environment. The environment has goods and bads not randomly distributed, but clustered; and this pattern is relatively unchanged over time. It is to the institution's best interest to avoid the bad areas and attempt to move toward the good areas. It is now more important to know the environment. The institution needs to have a comprehensive plan indicating how to move through the environment to find the good areas and avoid the bad areas. Strategic planning becomes important.

Disturbed, Reactive Environment

When other large, similar institutions with similar goals begin to dominate an institution's decision-making, the environment is referred to as a disturbed-reactive environment. The emergence of a dominate state governing or coordinating board can

create a disturbed-reactive environment. The environment still has clusters of goods and bads, but other institutions are now in a position to influence each other and the environment. Strategic planning is still appropriate because the institution wants to avoid bad areas and move into good areas. The actions of other institutions must be taken into account, however, during the planning process. Environmental uncertainty is increased. Not only must the actions of the institutions be taken into account, but their planned actions must be anticipated so counter moves can be made. Because of future uncertainties, contingency planning must be an integral component of the comprehensive planning process.

Turbulent Field

It has already been stated that the environment for educational institutions is becoming more complex at an increasing rate. Social, political, technological, and economic change are all generating uncertainty. There are inter-dependencies developing among many elements in the environments compounding this complexity and uncertainty. Government intervention and formation of special interest groups are now quite common. Emery and Trist refer to this environment as the turbulent field. They argue that the inter-dependencies among the elements become so great that the environment takes on characteristics of its own. Planning in this environment requires a high level of competence and involvement. The contingency planning component must be

sensitive to needs that arise; thus the process must be both continuous and dynamic. Strategic and operational planning must be integrated and should focus on the near future. Information systems should provide both internal and external information on a timely basis. Planning is likely to become political.

This situation (turbulence) also calls for collective strategies by which the institutions jointly can influence the environment which is changing around them. Social values that have overriding significance for all the affected institutions might be introduced into the environment. In this environment, long-range strategy formulation will have to be delayed until the turbulence is reduced.

The identification of the type of environment is a very important step in planning. If the environment can be classified in Emery and Trist's terms, the level of environmental analysis and approach to planning that is most applicable can be specified (See Table 2). The first column in Table 2 identifies the various environmental types, the second column identifies the relevant level of analysis that should be emphasized, the third column indicates the primary environmental relationships, and the fourth column indicates the relevant approach(es) to planning. The actual environmental type may not be pure--that is, the environmental types may overlap. Nevertheless, this classification enhances the understanding of the

Table 2. Summary of Environmental Type, Level of Analysis, and Approach to Planning

ENVIRONMENTAL TYPE	LEVEL OF ANALYSIS	ENVIRONMENTAL RELATIONSHIPS	APPROACH TO PLANNING
Placid, Random	Internal	L11	Tactical
Placid, Clustered	Operating	L21, L12	Tactical, Strategic
Disturbed, Reactive	Operating	L21, L12	Tactical, Strategic, Contingency
Turbulent Field	General	L22	Tactical, Strategic, Contingency, Political

institution to the environment and suggests a focus for and approach to planning.

A Comparison of Planning in an Open and Closed System

Open systems theory offers valuable insights to aid in understanding the planning function. It is particularly helpful in approaches to delineating and analyzing the environment (needs assessment). Both strategic and operational planning must recognize environmental-institutional interdependencies if the results are to be realistic. Outcomes of the strategic planning process attempt to state the relationship the institution desires with the environment. As the environment becomes more complex, institutions must cope with more uncertainty. Administration must be responsive to this reality. Planning appears to be a vehicle institutions are calling on to help meet this challenge. Because of the dynamic and complex environments, the planning process must be comprehensive, continuous, dynamic, and future-responsive. Open systems theory offers a conceptual framework for such a process and suggests changes in the purpose and nature of the planning function. Such changes are summarized in Table 3.

The primary premise for planning under the open systems assumption is that institutional direction is derived from information about the institution itself and its environment. Information systems are needed to keep administrators informed of changing needs and interests. The primary purpose of planning is to obtain and provide such information to the policy makers

Table 3. Comparison of Purpose and Nature of Planning under a Closed and Open Systems Perspective

	CLOSED SYSTEMS PERSPECTIVE	OPEN SYSTEMS PERSPECTIVE
PREMISE	Institutional direction is function of conventional wisdom of central administration	Institutional direction is function of information input from internal and external environment
PRIMARY PURPOSE	Achieve optimal efficiency and effectiveness	Adapt to and cope with changing environment
NATURE OF PROCESS	Centralized, Authoritative	Decentralized, Participative
	Static, Periodic	Dynamic, Continuous
	Rigid	Flexible, Contingency provisions
	Ad hoc	Systematic, Comprehensive
	Science	Art and Science
	Long range (10 years or more)	Short and long range (1 - 5 years)
DURABILITY	Interest wanes	Increasing interest and support

responsible for seeing that the institution adapts to its changing environment. Many two-year colleges have responded by conducting community needs assessments on a more formal and frequent basis.

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